Quantum ensembles have wide applications in emerging quantum technology including quantum computation, long-distance quantum communication, and magnetic resonance imaging. The thesis project aims to develop new theories and control algorithms to enhance control capabilities and robustness in the engineering of quantum ensembles. The project also involves possible collaboration with Professor Herschel Rabitz’s group at Princeton University.

The successful applicant, subject to admission to the PhD degree program, will be awarded a UNSW Canberra Research Training Scholarship with an annual tax-free stipend of $26,392 (2014 rate). This scholarship is for a period of 3 years, subject to satisfactory progress reviews. The successful applicant would be expected to be available to commence their studies no later than Session 2, 2014 and must be on campus and enrolled at UNSW Canberra in the relevant PhD program by 31 August 2014. Potential students with strong background of quantum physics or control theory are encouraged to apply for this scholarship. Applications will be accepted until a suitable candidate is found.

UNSW Australia (the University of New South Wales) is one of Australia’s leading research and teaching universities and a founding member of the prestigious Group of Eight (Go8) research-intensive universities in Australia and a member of the Universities 21 international consortium. UNSW Australia is an Australian university with a global vision to bring our students a truly world-class learning experience; we regularly collaborate with pioneering universities around the world. The Canberra campus of UNSW Australia is located at the Australian Defence Force Academy (ADFA).

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